

CLAIMS

1. An intake system with a modular design for an internal combustion engine, having an air distributor module (2) made of plastic which can be connected to an air intake of the internal combustion engine, having a plurality of one-piece intake manifold modules (6) made of plastic, each being connected at its one pipe end (7) to the air distributor module (2) and each being assigned to one combustion chamber of the internal combustion engine, and having at least one flange module (9) made of plastic in one piece, to which at least one of the intake manifold modules (6) at its other pipe end (8) is connected and which can be mounted on the internal combustion engine.
2. An intake system according to Claim 1, characterized in that each intake manifold module (6) is designed as a blow-molded part, i.e., as a part produced by a blow-molding method.
3. An intake system according to Claim 1, characterized in that each intake manifold module (6) is designed as an injection-molded part, i.e., as a part produced by an injection-molding method.
4. An intake system according to Claim 3, characterized in that the injection-molding method used to produce the intake manifold modules (6) works with a rotary slide technique or with a half-shell technique.
5. An intake system according to one of Claims 1 through 4, characterized in that each flange module (9) is designed as an injection-molded part, i.e., as a part produced by an injection-molding method, which is integrally molded onto the minimum of one intake manifold module (6), where the respective

pipe end (8) of the intake manifold module (6) is shaped in such a way that a form-fitting connection is created between the intake manifold module (6) and the flange module (9).

6. An intake system according to one of Claims 1 through 5, characterized in that two flange modules (9) are produced, each being assigned to one cylinder block of the internal combustion engine, with the intake manifold modules (6) which are arranged side-by-side being connected to one flange module (9) and to the other flange module (9) in alternation.
7. An intake system according to one of Claims 1 through 6, characterized in that the flange module (9) extends along one side of the air distributor module (2) and in parallel with it, and the minimum of one intake manifold module (6) is connected to an area of the air distributor module (2) that faces away from this side.
8. An intake system according to one of Claims 1 through 7, characterized in that the intake manifold modules (6) are each connected to the air distributor module (2) at the top.
9. An intake system according to one of Claims 1 through 8, characterized in that each intake manifold module (6) is joined to the air distributor module (2) by a welding method.
10. An intake system according to one of Claims 1 through 9, characterized in that the air distributor module (2) is modular in design and consists of a one-piece air distributor top part module (3) made of plastic and a one-piece air distributor bottom part module (4) made of plastic, where the intake manifold

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modules (6) are connected to the air distributor top part module (3).

11. An intake system according to one of Claims 1 through 10, characterized in that the modules (2, 3, 4, 6, 9) are made of a polyamide plastic.
12. An intake system according to one of Claims 1 through 11, characterized in that the modules (2, 3, 4, 6, 9) are made of a fiber-reinforced plastic, in particular a glass fiber-reinforced or carbon fiber-reinforced plastic, in particular a polyamide plastic.
13. A method of producing an intake system according to one of Claims 1 through 12, characterized in that the intake manifold modules (6) are produced by a blow-molding method; the pipe ends (8) assigned to a flange module (9) are introduced into an injection mold; this flange module (9) is produced by an injection-molding method wherein the pipe ends (8) introduced into the injection mold are embedded in the material of the flange module (9), and the pipe ends (7) assigned to the air distributor module (2) are connected to the air distributor module (2).

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